DOCUMENT RESUME

ED 248 225 SP 025 129

AUTHOR Nxumalo, Miriam V. F.
TITLE Curriculum Studies, Instructional Materials for Teachers Training Colleges in Swaziland. African Studies in Curriculum Development & Evaluation No. 99.
INSTITUTION African Curriculum Organisation.; German Agency for Technical Co-Operation, Nairobi (Kenya).; Kenya Inst. of Education, Nairobi.; Nairobi Univ. (Kenya).
PUB DATE 83
NOTE 95p.; Legibility is poor.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Curriculum Design; *Curriculum Development; *Curriculum Evaluation; Foreign Countries; Higher Education; *Instructional Materials; Preservice Teacher Education; Program Improvement; Schools of Education; Student Needs; *Test Construction; *Test Selection; Test Validity
IDENTIFIERS *Swaziland

ABSTRACT

A study was conducted to determine the most salient elements to be incorporated into a curriculum studies course for students in one of the three 2-year teacher training colleges in Swaziland. The course was developed to acquaint prospective teachers with curriculum objectives, methods, and evaluation devices, and to help them to critique some aspects of instructional materials. Contributing to the gathering of information were lecturers from the three teacher training colleges, University of Swaziland lecturers, and National Curriculum Centre staff members. Contributors were interviewed on the selection of concepts, student teacher orientation, and curriculum implementation and adaptation. Two instructional units were developed. The first unit contains five sections--concept and elements of curriculum, dimensions of curriculum, objectives, content and methodology, and evaluation. The second unit illustrates aspects of testing and discusses categories and types of tests. The focus is upon test construction by using test specification tables, and applying practical suggestions. A discussion is presented on the merits and demerits of essay type and objective type tests, emphasizing that the selection of test types is related directly to the learning objectives of the lesson. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Peter Sachsenmeier

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X The document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

African Contacts

in Curriculum Development & Evaluation

General Editors: Peter Sachsenmeier
Kofi B. Quansah

No. 99

M. NXUMALO

CURRICULUM STUDIES
INSTRUCTIONAL MATERIALS
TEACHERS TRANING COLLEGES
IN SWAZILAND.

AGE Project

GTZ, Att. Peter Sachsenmeier
PO Box 54845, Nairobi

BEST COPY

This research project was undertaken as part of a training programme jointly organised on behalf of the African Curriculum Organisation (ACO) by the Kenya Institute of Education (KIE), the University of Nairobi, and the German Agency for Technical Cooperation (GTZ).

BEST COPY

DEVELOPMENT OF CURRICULUM STUDIES INSTRUCTIONAL MATERIALS FOR TEACHER TRAINING COLLEGES IN SWAZILAND

BY

Miriam V.F. Nxumalo

Dip. Ad. Ed., B.Sc.

Submitted to the Department of Educational Administration, Planning and Curriculum Development in partial fulfilment of the requirements for the Post Graduate Diploma in Curriculum Development.

University of Nairobi

1983

TABLE OF CONTENTS

Contents		Pages
Acknowledgement		ii
Introduction		iii
CHAPTER I	- Statement of the Problem	1 - 8
CHAPTER II	- Methodology	9 - 13
CHAPTER III	- Data Analysis	10 - 19
UNIT 1	- Concept and Elements of Curriculum	20 - 23
	- The Dimensions of Curriculum	24 - 25
	- Objectives	26 - 33
	- Content and Methodology	34 - 38
	- Evaluation	39 - 42
UNIT 2	- Types of Tests and Test Construction	43 - 48
	- The Dimensions of Testing	49 - 52
	- Basic Steps in Classroom Testing	54 - 60
	- Essay Type Tests	61 - 64
	- Types of Objective Tests	65 - 69
	- Construction of Multiple Tests	70 - 74
CHAPTER IV	- CONCLUSIONS AND RECOMMENDATIONS	75 - 76
APPENDICES		77 - 87
BIBLIOGRAPHY		88 - 89

ACKNOWLEDGEMENT

I would like to express my thanks and appreciation to Mr. M. B. Mabuza, Director of the National Curriculum Centre, for allowing me the use of the centre's facilities. I am deeply indebted to my supervisor, Professor Martha John, for going out of her way to guide and assist me in my study. A debt of gratitude also goes to Mr. Tim Singwane, Centre Evaluator, for his invaluable assistance in evaluating the interview schedule.

Special thanks go to the Principals of the three Teacher Training Colleges for facilitating the interviewing process, and the interviewees for their responses.

Lastly, I would like to express my thanks and appreciation to Miss Thoko Mamini for typing my report.

INTRODUCTION

This study is an attempt to introduce student teachers to the concept of curriculum development, and to familiarize them with the new curricular being developed at the National Curriculum Centre.

In order to motivate the student teachers to view the new curricula with a critical eye, curriculum adaptation exercises have been incorporated in more than one unit. The objective is to enable the student teachers to suit the centrally developed curricula to existing situations in their future classrooms.

Some insights into test construction techniques have been suggested, with the objective of enabling the student teachers to construct more valid tests in their future schools.

The recommendations made in this paper are merely suggestions. They are not binding, but given in an endeavour to solve some of the problems in Teacher Education.

CHAPTER 1
STATEMENT OF THE PROBLEM

A. BACKGROUND

The Government of Swaziland (GOS) established the Primary Curriculum Unit (PCU) in 1973, for the purpose of reforming the primary curriculum. In January, 1980, the first nationwide implementation of the new curricula was undertaken. Since then, one Grade per year has been introduced to the use of the new curricula in Science, siSwati (National language), Social Studies and Mathematics).

The Teacher Training Colleges (TTC's) have lagged behind in the curriculum reform effort. The lecturers have not exerted themselves enough to introduce the student teachers to the concept of curriculum development. Few individuals have exposed their students to the use of the new instructional materials now being used in the primary schools of Swaziland. This study is an attempt to maximize the involvement of TTC's in the curriculum reform effort.

B. DESCRIPTION OF THE PROBLEM

1. TTC's AND THEIR ENROLMENTS

Swaziland has three TTC's afficiated to the University of Swaziland (UNISWA). The three - William Pitcher, Nazarene and Ngwane TTC's - offer a two year training programme for primary school teachers. William Pitcher (WPTTC) additionally trains secondary school teachers and a small complement of primary Home Economics teachers.

From 1972 to December, 1982, WPTTC operated a full-time In-service Department responsible for upgrading untrained serving teachers. The 1976 enrolments for TTC's were:

Secondary Teachers Certificate	- 112
Primary Teachers Certificate	- 229
Home Economics	- 10
Upgrading Course	- 100

(Third National Development Plan - 1978/79-1982/83, P. 189).

The average output was 60 secondary, 200 primary and 10 Home economics teachers per year. Ngwane TTC which was opened in May, 1982, with an intake of 348 students, will greatly improve these figures.

2. INSUFFICIENT EXPOSURE OF STUDENT TEACHERS TO NEW CURRICULA

The graduates of these TTC's are not sufficiently exposed to the concept of curriculum development. Some of them do not use the new instructional materials during their two years of study at college. They continue to use the old instructional materials during their training. Student teachers are exposed to the new instructional materials mainly during teaching practice. When preparing for teaching practice, some take advantage of the close proximity of their college to the PCU, (referred to from April, 1983 as the National Curriculum Centre - NCC). They consult members of the curriculum centre as well as class teachers of the schools assigned to them, for guidance in the use of new curricula. This inadequate instruction creates a gap between the training the student teachers receive at college and the reality they have to face in their world of work. The seriousness of the gap is magnified by the fact that the increase of trained teachers

is smaller than that of untrained teachers. For example, in 1976, the former increased by 5 per cent compared to 65 per cent increase of the latter. (Third National Development Plan - 1978/79 - 1982/83 P. 183).

3. INSUFFICIENT INVOLVEMENT OF TTC'S IN THE CURRICULUM DEVELOPMENT EFFORT

The Ministry of Education (MOE) placed the PCU buildings within the WPTTC complex in order to facilitate interaction between the TTC's and the curriculum developers in the PCU: the PCU identified lecturers in the TTC's to act as members of the Review Committees in each subject area developed in the PCU. The responsibility of Review Committee members is to review draft materials before trial-testing. They also refine the revision of the new curricula before these are presented to the relevant subject panels for final approval.

Inspite of these efforts, TTC involvement has left much to be desired. Few of the lecturers make a conserted effort to attend all Review Committee Meetings in their subject and contribute some instructional materials for inclusion in the new curricula. Seldon if ever do they contribute new instructional materials. None of the TTC lecturers have attended the implementation workshops run by the PCU and the inspectorate staff at the beginning of each year, since 1980.

4. MOE EFFORTS TO MAXIMIZE TTC INVOLVEMENT

The MOE established a Teacher Education component in the PCU in 1976, with explicit terms of reference to coordinate curriculum activities in the TTC's and in the districts (Project Evaluation Summary, 1980-P. 5) To date, no meaningful forms of coordination between the NCC and the TTC's have been established.

After the first implementation of the PCU developed curricula in 1980, the MOE directed that an urgent and definite plan to introduce curriculum studies at TTC's, be drawn up. In October, 1979, an interim committee consisting of representatives from the PCU, UNISWA and the TTC's was formed to process the plans. In December, 1979, this committee presented a draft syllabus to the Curriculum Coordinating Committee (CCC) which was duly approved. For some unexplained reasons, the implementation of the syllabus has not taken place. The MOE sponsored a Curriculum and Implementation workshop for all primary school headmasters in Swaziland, from June to August, 1982. It was held at UNISWA, and was attended by over 80 per cent of the headmasters. The problem of insufficient TTC involvement in curriculum development and implementation was discussed at length. The principals of the TTC's were urged to ensure that the 1983 college gradutes would be better informed in curriculum development and implementation than their former colleagues. It is on the strength of these developments that the writer feels the need for a cooperative effort in the development of instructional materials for Curriculum Studies in the TTC's. It would not only open wider communication channels between the NCC and the TTC's but also increase the awareness of the TTC graduates in the curriculum development process. This would enable them to contribute more effectively in curriculum development in their new schools.

C. RATIONALE FOR THE STUDY

1. COUNTERACTION OF DISCREPENCIES

To date, the new TTC's graduates require immediate in-service training on the implementation of new curric[illegible] because they do not

receive enough in-college exposure in some subject areas. The study is intended to provide the means of counteracting this inefficient utilization of human and material resources.

2. NEW APPROACHES

The study is deemed to help the TTC lecturers to keep abreast of new approaches and terminology in the field of curriculum reform activities. In effect, the entire educational system will benefit from the bridging of the gap between the students' in-college training and the reality in their world of work.

3. INTERCHANGE OF IDEAS

Whereas at present curriculum developers and TTC lecturers have no common platform for sharing ideas on educational matters, the study, which was a joint venture, appears to have encouraged some interaction between the two groups.

4. CRITICAL THINKING

After being exposed to the instructional materials for curriculum development and implementation, the TTC students will acquire skills of critically studying and adapting the new curricula. They will be able not only to give meaningful feedback to the NCC but also to improve their own classroom curricula where it falls short.

D. OBJECTIVES OF THE STUDY

The objectives of the study were:

1. to work cooperatively with TTC lecturers in identifying concepts

2. Intended outcomes of the course:

Teacher will:

(a) be able to manage both the current and the new curriculum materials in the classroom situation.

(b) be able to supplement the curriculum essential for his classroom situation.

(c) participate effectively in curriculum development activities within the school situation.

(d) be aware of the curriculum development activities in the curriculum development centre and in the district.

(e) the Secondary Teachers Certificate (STC) student teachers will be able to understand the theory of systematic curriculum development ----------."

The paper explains further that one strategy for reaching the outcomes would be to integrate the concept of curriculum development in the various subject areas taught in TTC's. Another would be to include it in the Education Course.

The paper suggests that,

"-- In the process of exposure, the student teachers should be acquanted with objectives, content, methods and evaluation devices: students should also be given an opportunity to:

(i) make a critique of some aspects of these materials;

(ii) practise developing some curriculum materials and;

(iii) try some of the materials in the school --------."

In addition, a Unit entitled "Curriculum Development" is proposed, to consist of:

"(a) elements of curriculum - objectives content, methods and evaluation.

(b) process of curriculum development in the classroom, school, district and national level. Emphasis to be on curriculum development at classroom and school level.

(c) contribution of in-service teacher training in curriculum development ....."

(b) Observations on the paper

The student teachers spend only two years at college. For this reason, the demands of the paper seem to be rather much, especially taking into account that there are other subject requirements. Secondly, it is felt that as most of the Primary Teachers Certificate Students come to college with eleven years of schooling, acquanting them with objectives content, methods and evaluation devices, as well as helping them to critique some aspects of the materials should be enough. The demand of (ii) and (iii) on page 7 might be beyond their capabilities. It is suggested that the restructuring of the suggested additional unit should exclude "--------district and national level" in section (b) of the Unit.

2. LITERATURE FROM OTHER COUNTRIES

In the Kenyan situation, Curriculum Studies are taught under Professional Studies. The syllabus for Professional Studies has four major sections, namely, Foundations of Education, Curriculum Studies, Educational Administration and Management and Educational agencies outside the Ministries of Education.

The course content for Curriculum Studies consists of the process of curriculum development.

CHAPTER II

METHODOLOGY

A. DESCRIPTION OF THE POPULATION

The population for the study consisted of TTC lecturers from all three TTC's, UNLSWA lecturers and NCC staff.

1. THE TTC LECTURERS

The rationale behind the involvement of TTC lecturers in the study is threefold. First, they and their students are the future consumers of the instructional materials to be developed, therefore, most of them were involved in deciding on the concepts to be included. Secondly, the lecturers are expected to assist in the development of instructional materials to augment those developed in this study. Their involvement in deciding the concepts to be dealt with at this stage will enhance their contributions, later. Thirdly, they are instructors either in the core Curriculum Studies course, or in their subject areas.

(a) DESCRIPTION

There are over fifty lecturers in the three TTC's. They are grouped into the following categories:

- Senior lecturers, some of whom hold masters degrees. They are all designated Senior Lecturers by virtue of their positions as heads of departments.

- Lecturers who are holders of first and second degrees.

- Assistant lectures who hold teacher primary and secondary certificates, with some experience in teaching.

(b) SCOPE OF INVOLVEMENT

Interviews were carried out with heads of departments and lecturers in Science, Mathematics, Social Studies and SiSwati. Lecturers in the Education Departments of TTC's were all interviewed, because they will teach the core curriculum concepts.

2. NCC STAFF

(a) DESCRIPTION

At present the NCC has a full-time professional staff of 12 people made up of curriculum developers, a curriculum evaluator, a teacher educator, teacher leaders. Their educational background is similar to that of TTC lecturers. They work in the areas of Mathematics, Science, Language Arts, Social Studies and Practical Arts, evaluation and in-service training of pilot school teachers. They were included in the study because of their expertise in curriculum development and implementation.

(b) SCOPE OF INVOLVEMENT

The curriculum developers and the teacher educator were interviewed on the selection of the concepts, student teacher orientation and curriculum implementation and adaptation. The evaluator assisted in the reviewing of selected concepts, data collection instruments and data analysis.

B. SAMPLING PROCEDURES

1. SAMPLE SIZE

The table below shows the composition and size of the sample for the study:

TABLE 1

Number of subjects in each sample selected:

POPULATION TYPE	TOTAL POPULATION	SAMPLE	%
Education Departments of TTC's	9	9	100
TTC Subject Heads	15	15	100
NCC Subject Heads	4	4	100
NCC Evaluators	1	1	100
NCC Teacher Educators	1	1	100
UNISWA Lecturers in Curriculum Development	3	3	100
TOTAL	33	33	

As can be seen from the above table, 100 per cent of the selected clusters were expected to participate in the study.

2. METHOD OF SAMPLE SELECTION

Cluster sampling appeared to be the most suitable method of sample selection for the study:

- The cluster of lecturers in Education at the three TTC's was selected for two reasons. First, they will ultimately use the materials to teach the course to the student teachers, therefore they were involved in the selection of the concepts so that

they not only identify with them but also understand and appreciate the rationale behind their selection.

- The TTC heads of departments in the subject areas developed in the NCC - Science, siSwati, Social Studies and Mathematics were selected in order to make an input in what their students would learn in Curriculum Studies as well as during curriculum implementation phase of the study.

- The subject area heads of the NCC appeared to be the most knowledgeable cluster in the subject areas now being implemented nationwide. Having been involved in the development of the new curricula, they were deemed to have the experience and expertise to identify curriculum concepts and areas which need to be highlighted during implementation.

- The NCC evaluator was selected for his experience and expertise in programme evaluation and student assessment. His participation in the study ensured the soundness of the data collection instrument.

C. DATA COLLECTION INSTRUMENTS

The interview schedule for the instructional materials was divided into five sub-categories as follows:

- Introduction
- Relevance and Timing
- Curriculum Concepts
- Student Orientation
- Curriculum Adaptation

(See Appendix A for the interview schedule)

D. ADMINISTRATION OF THE DATA COLLECTION INSTRUMENT

The researcher interviewed the respondents institution by institution, starting with NCC staff, then TTC lectures and lastly UNISWA. Interviewing was sporadic due to the end-of-year break at UNISWA from May to August, and the TTC five week period of teaching practice from the 1st week in July to the 1st week in August, 1983.

E. LIMITATIONS OF THE STUDY

The mini-trial of some of the instructional materials was not done due to the fact that the students had a five-week teaching practice, at the time that the try-out was planned.

Another limitation was the time constraint, and the distance involved in interviewing the Ngwane Teacher's College. However, the cooperation of the principal made it possible for the sample to participate in the study.

CHAPTER III

DATA ANALYSIS

I. PROFILE OF RESPONDENTS

The sample consisted of 37 respondents of which 31 respondents were interviewed. Fourteen of them were male and seventeen were female.

Table I
Showing the teaching experience of respondents

Years	1 - 5	6 - 10	11 - 20	Over 20
Frequencies	2	5	13	11

It would appear that about 36 per cent of them had over 20 years of teaching experience, while about 40 per cent had between 11 and 20 years experience.

Table 2
Showing TTC experience of respondents

Number of Years	$\frac{1}{2}$ - 1	2 - 6	7 - 10	Over 10
Frequencies	12	10	4	5

About 16 per cent appear to have had over 10 years of experience as teacher educators and about 12 per cent had 7 - 10 experience.

Table 3
Showing positions held by respondents

Dept. Heads	Lecturers	Evaluators	Professors	Principals
13	14	1	2	1

Of the two options of 16 weeks and 12 weeks, the former seems to have been preferred for STC and the latter for PTC, as Table 3 shows. 19 per cent of the respondents wanted the course to continue throughout the year.

Table 4
Showing Subject Areas of Respondents

Education	Science	S. Studies	siSwati	English	H. Ec.	Art & C.	Tech. Ed.	Other
8	5	2	3	3	2	3	1	4

Each of the subject areas currently being developed at the NCC were represented, as reflected in Table 4. About 25 per cent of the respondents were TTC lecturers in the Education Department.

II. TIMING AND INSTRUCTION OF COURSE

Table 5
Showing Duration of Curriculum Studies Course (CSC)

Levels	P.T.C.			S.T.C.		
Weeks	16	12	Other	16	12	Other
Frequencies	7	14	Throughout - 6	10	9	Throughout - 6
			1 Term - 1			

Of the two options of 16 weeks and 12 weeks, the former seems to have been preferred for STC and the latter for PTC, as Table 5 shows. 19 per cent of the respondents wanted the course to continue throughout the year.

Table 6
Showing Preferred Time Allocation for CSC in Minutes per Week

Levels	P.T.C.				S.T.C			
Minutes per week	120	90	60	Other	120	90	60	Other
Frequencies	5	9	6	40 4	10	1	6	40 - 5
				50 - 1				80 - 3
				80 - 2				

In the above table, it is indicated that 90 minutes per week were preferred for PTC and 120 minutes for STC. Many of the respondents added "as time permits" after making their choices, which might be construed to mean that time may be a constraint.

Table 7
Showing lecturers Preferred to Instruct in CSC

Education Department	Subject Depts.	NCC Curr. Designers	NCC Teacher Educator	All Depts.
14	8	6	2	5

The table suggests that lecturers in the Education Department were supposed to teach curriculum studies. This could be due either to preference or to the fact that there were more respondents in the cadre. (cf Table 4)

III. RESPONSES ON CONCEPTS

A. THE CONCEPTS OF CURRICULUM DEVELOPMENT

Appendix A shows the eight broad concepts the interviewees were expected to respond to. They were expected to indicate whether these concepts were suitable for inclusion in the Curriculum Studies materials. They were also expected to indicate the suitable levels, namely, PTC and STC.

Table 8
Showing Responses on selected concepts

Concept	Curr. Concept			Elements			Curr. Stages			Bases		
Levels	PTC	STC	Both	PTC	STC	Both	PTC	STC	Both	PTC	STC	Both
Frequencies	0	3	26	0	2	28	0	7	23	0	6	0

It would appear that 70 per cent of the respondents were in favour of teaching the concept of curriculum, elements and the stages of curriculum development at both levels. However, many respondents emphasized the importance of treating the topics in outline only, and relating the content as closely as possible to the classroom situation. This emphasis came mainly from experienced lecturers. One of them stated:

> "No formal approach please; basic, simple, practical aspects of curriculum studies should come in all the time, related closely to the classroom situation."

Another one responded:

> "Please do not try to make the student teachers amateur curriculum developers. The students have neither the capacity nor the time for detailed curriculum studies. They are in college for only two years and have many other subjects claiming their time."

Philosophy and sociology as bases of curriculum were seen by over 80 per cent of the respondents as being too advanced for the proposed levels.

B. CURRICULUM ORIENTATION

Table 9
Showing Preferred areas of Emphasis for Curriculum Orientation

Detailed Content	Outline Content	Problem Areas	Teaching Techniques	Teaching Aids
6	24	20	17	20

Emphasizing outline content of curricula materials appears to be most popular with 24 choices, as against 6 choices for giving attention to details. Attending to problem areas, and constructing teaching aids were also viewed as important, as shown by 20 choices. Over 90 per cent of the respondents were in favour of the teaching of test construction techniques.

C. CURRICULUM ADAPTATION

Interviewees were asked to rank order the following topics, giving 1 to the most important and so on up to 10 for the least important.

Table 10
Showing Preferred Areas of Importance for Curriculum Adaptation.

Frequencies / Rank										
Concepts	A	B	C	D	E	F	G	H	I	J
1 =	6	2	5	3	0	0	1	5	1	8
2 =	2	4	1	5	2	1	5	4	7	3
3 =	3	5	2	6	1	1	2	3	3	2
4 =	8	2	1	2	4	0	2	2	4	2
5 =	4	2	0	4	4	1	1	3	4	4
6 =	0	6	3	2	3	2	3	2	3	2
7 =	1	6	4	1	2	1	4	3	5	2
8 =	1	1	5	1	6	4	4	2	0	3
9 =	2	0	3	2	2	8	2	2	2	1
10 =	0	0	4	1	4	10	5	1	1	1

N.B. Check Appendix A for identification of concepts A - J.

The table indicates that students' needs were ranked highest, with relevance to existing situations coming second. The importance of applicability to existing situations was also ranked high on the list. Many respondents felt strongly that financial considerations were important for curriculum adaptation.

Most of the lecturers in practically-biased subjects such as Home Economics, Technical Education and Art and Crafts deemed it to be deserving of the highest consideration.

One stated:

> "In practical subjects such as Science, Home Economics and Art, lack of finances can cripple programme implementation."

D. GENERAL COMMENTS

A number of respondents felt that when dealing with psychological issues in curriculum development, specific examples should be cited of how children acquire certain skills such as language. The involvement of inspectors was one of the issues mentioned by about 16 per cent of the respondents.

One stated "If the inspectors are not knowledgeable enough about curriculum development, they will not carry out their leadership role effectively."

Lack of enough reference materials and in-service training for TTC's were also mentioned by a number of respondents.

"We need to read more on curriculum development in order to widen our scope," one stated.

Though a number of respondents recognized the contribution that the NCC can make in this regard, they required self improvement.

UNIT 1 - THE CONCEPT OF CURRICULUM DEVELOPMENT

GUIDE TO THE UNIT

This unit is made up of five lessons introducing the student to the meaning of curriculum, its dimension, elements and an overview of the stages of curriculum development. A detailed study of the theme was not part of this effort.

INSTRUCTIONAL OBJECTIVES

By the end of the unit, the student will be able to:

1. define "curriculum".
2. mention the dimensions of curriculum and discuss the importance of each.
3. discuss the elements of curriculum and appreciate their inter-relationship.
4. explain the stages of curriculum development.

LESSON 1 - THE MEANING OF CURRICULUM

OBJECTIVES

The student will form the concept of "curriculum" by:-

1. listing different kinds of activities done at school.
2. grouping the activities that belong together.
3. categorizing the activities.
4. giving his own definition of curriculum.

5. selecting a definition most similar to his own, from given option.

SUGGESTED MATERIALS

Time tables, syllabi, concept formation cards, scheme books and preparation books.

SUGGESTED PROCEDURE

1. Divide the class into small groups. Ask each group to;
   - discuss and list various school activities that contribute to their education.
   - group the "learnings" together, according to similarities.
   - categorize and name the groupings.

   A task card dealing with concept formation could look something like this:

   Listing - What activities or experiences do you participate in at school?

   Grouping - Which of these activities/experiences belong together?

   Categorizing- What would you call each of the groups?

2. Collect the lists from the groups and compile a list of all the contributions on the chalkboard. Now, as a whole group, discuss the various aspects of curriculum that have been identified in the listing - grouping - and - categorizing activity.

The list might look something like this:

LIST

X Playing ball at break
learning English
singing in the choir.

O Going on a field trip.

O Sweeping the school ground

O Cleaning the chalkboard
working on Mathematics.

Listening to a visitor's Speech.
Learning Science.

KEY

X = informal learnings.

O = tasks related to formal education.

= knowledge areas.

= occasional experiences.

3. Explain that the school has to plan most of the identified activities and experiences. Display the following planning tools and discuss their usage:

- The Syllabus - for planning the scope of work to be covered per year.
- The Time Table - for planning the length of time allocated to each subject area per week.
- The Scheme Book - for planning the sequence that will be applied to the different topics of a subject.
- The Preparation Book - for planning the daily handling of each topic on the time table.

- Explain that both the planning of school activities, and their implementation, constitute the school "curriculum" whose main purpose is the education of school children.

4. Let the students define curriculum in their own words. Now, let them examine the following definitions of curriculum, and select the one that is most similar to their own:

   (a) Curriculum means a course of study.

   (b) Curriculum is "the planned interaction of pupils with instructional content, instructional resources and instructional processes for the attainment of educational objectives" (Frederick Rodgers, 1975).

   (c) Curriculum is "all planned learning outcomes for which the school is responsible." (Popham and Baker).

   (d) Curriculum is all the planned activities which learners do together with their teachers, in and out of school.

EVALUATION

Evaluate the students' performance on the following exercises.

1. List, group and categorize four different kinds of activities you do at school, which contribute to your education.

2. Give your own definition of curriculum.

3. From the list of definitions provided, select and write the one you feel is most similar to your concept of "curriculum".

LESSON 2 - THE DIMENSIONS OF CURRICULUM

OBJECTIVES

The child will:

1. define four dimensions of curriculum.
2. give examples of these in his own college/school.
3. analyse the role and importance of each dimension.

SUGGESTED MATERIALS

List of activities compiled in Lesson 1, college notice board.

SUGGESTED PROCEDURE

1. Review the activities of the previous lesson (concept formation).
   Let the students check the college notice board for those regular out-of-class activities in which they are involved. (Probably sports Days, Field Trips etc.).

2. Omdiek (1983 pp 9 - 10) discusses four dimensions of the school curriculum.
   • Using some of the knowledge gained in the previous lesson, define and discuss each dimension with the class, analysing the importance of each.
   Summarise on the chalkboard as follows:

   (a) The Formal Dimension

   This dimension refers to the courses of study offered in a school. Ask student for examples. Explain that the broader categories of subject matter include the humanities, the sciences and Mathematics. This aspect is the most important because it offers students opportunities for acquiring knowledge, skills and values by which they are graded for progression to the next Grade.

(b) The Informal Dimension

Most of the learnings that take place in the students environment - work, play, interaction with peers and family members, mass media and the library, form part of this dimension.

Though learning takes place more or less unconsciously, this aspect of the curriculum is important because it enables the students to exploit their environment.

(c) The Non - Formal Dimension

This aspect includes all planned and organised out-of-class activities such as games, sports, community projects and field trips. Its importance lies in the fact that it offers variety, more motor activity and the inculcation of positive attitudes towards work and play.

(d) The Emerging Dimension

The dimension refers to special occasions in the life of the school such as Parents' Day, Speech Day and visits by important people. Students interact with members of the community during such occassions. The members of the community also get insights into the life and working of the students and the school.

EVALUATION

In one page, name, define and discuss four dimensions of the curriculum in your own school. Analyse the importance of each.

LESSON 3 - THE ELEMENTS OF CURRICULUM: OBJECTIVES

OBJECTIVES

The student will use notes and other reference material to:

1. name the three elements of curriculum.
2. discuss the importance of three levels of objectives.
3. explain the relationship between educational aims and objectives.
4. list and discuss five criteria for a good behavioural objective.
5. write 3 behavioural objectives based on NCC materials.
6. discuss the two schools of thought on behavioural objectives.

SUGGESTED MATERIALS

Overhead projector, transparencies with Ralph Tyler's four basic questions on curriculum development, National Goals and Educational Aims of Swaziland, NCC Social Studies Grade 3 materials, a model showing the relationship between educational aims and objectives.

SUGGESTED PROCEDURE

1. Ask the students to review the purposes of the planning tools discussed in Lesson 2, namely, the syllabus, the scheme book and the preparation book.
   - Focus their attention on one lesson plan in the preparation book, and ask:
     - What part of the lesson plan states why the lesson is being taught? (Aim)
     - What part contains the matter to be taught and how it will be taught? (Presentation/application)

* What section of the lesson helps the teacher to assess whether the lesson was grasped? (Revision)

- Explain that curriculum has three major elements that are somewhat similar in purpose to the three sections of a teacher's lesson plan, but on a much larger scale, and involving a much wider scope. Invite the students to draw similarities to the above as you give the following information:

* Policy - makers decide what the National Goals and Educational Aims of a country will be. Curriculum specialists and other educationists are charged with the responsibility to decide how best the educational aims can be achieved. This they do by seeking what is deemed to be most worthwhile for inclusion in the curriculum. The following four basic questions for curriculum development posed by Ralph Tyler have been widely used by many curriculum specialists: (Show them in a transparency)

"1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?"

(Ralph Tyler, 1949)

* Allow time for the students to discuss these questions and draw similarities. (They might come up with something like this: question 1, like the lesson aim, seeks to clarify the aims of education. Questions 2 and 3 are similar to the presentation stage in a lesson plan, while question 4 is somewhat like the revision stage.)

2. Name and discuss the three elements of curriculum - objectives, content and methodology and evaluation.

- An objective is a statement describing a proposed change in learner behaviour. It describes intended learner competencies which should come about as a result of a learning experience or instruction. Content and methodology belong together and cannot be separated. Content is the scope of subject matter, activities or experiences a learner is intended to cover in order to achieve the proposed change in behaviour. Methodology is the "how" of content delivery. Lastly, evaluation is a means of assessing how far the stated objectives are being or have been achieved.

- Refer the class to Tyler's four basic questions again, and encourage them to match the elements with the questions. (Question 1 - objectives, 2 and 3 - content and methodology and 4 - evaluation)

3. Focus the students attention on "Objectives". Explain that objectives emanate from National Educational Aims which are broad, long-term statements. Explain that there are three levels of objectives, namely, curriculum, instructional and behavioural objectives.

Curriculum Objectives emanate from educational aims. They spell out competencies or proposed behaviour changes expected of learners at primary, secondary and tertiary levels of education. They are classified into domains or areas of knowledge - cognitive, (knowledge) affective, (feelings and emotions) and psychomotor (skills) domains (Bloom, 1956). (See Appendix C for " Domains")

Instructional Objectives are a breakdown of curriculum objectives. They indicate behaviour changes expected of learners at the end of a unit or course.

Behavioural Objectives are a detailed version of instructional objectives, specifying what the learner will do in order to achieve an instructional objective. They are characterised by the use of overt verbs in their statement, for example - list, describe, draw.

4. Display the following transparency to illustrate that objectives emanate from educational aims:

National Goals

↓

National Educational Aims

↓

Curriculum Objectives (for educational levels)

↓

Instructional Objectives (for a Unit or course)

↓

Behavioural Objectives (for each lesson)

- Refer the students to NCC Social Studies Teacher's Guide for Grade 3 to illustrate the relationship between educational aims and objectives:

National Goal

Respect for Swazi Institutions including Customary Law (Appendix A/B)

Educational Aim

All education shall be designed to inculcate love for out Land, loyalty to our King and Country, ... accompanied by the highest degree of knowledge and character building. (Ibid/B)

Curriculum Objective

Child knows the structure of the Swazi family life (Primary School outcomes - PCU, 1976, p. 30 C).

Instructional Objective

Distinguishes the two types of families - nuclear and extended family. (Ibid p. 30 (a).

Lesson Objectives (Teacher's Guide pp. 3-4)

Knowledge:

1. Identification, classification of family members.
2. Identification of family types (single, plural, core or nuclear, extended) . . . . .

B. Values

1. Increased awareness of childs own relationship in the family.
2. Increased awareness of other family relationship.
3. Increased awareness of the importance of the family Unit.

5. There are two schools of thought on the use of behavioural objectives.

One school of thought advocates their use because they are seen to:

- help the teacher to measure the extent to which his students are succeeding/changing their behaviour as a result of instruction.
- provide the specificity that helps both teacher and student to know exactly what is to be done.

> Robert Mager states "an instructor will function in a fog of his own making until he knows just what he wants his students to be able to do at the end of the instruction."
>
> Popham notes that "precise objectives stated in terms of measurable learner behaviour make it definitely easier for the teacher to engage in curricular activities --------."

Place the following examples on a transparency to provide visual input for the students:

Instructional Objectives:

By the end of the unit, the student will be able to plan a balanced diet.

Behavioural Objectives

The student will:

(a) list the four major food groups.

(b) discuss the major nutrient content of each food group.

(c) explain the daily requirements (amounts) for each food group.

(d) draw up well balanced menus to cover one day.

(e) evaluate the menus in terms of nutrient content and required daily amounts.

The five above show what the student will do to be able to plan a balanced diet - they describe the different behaviours he will engage in to achieve the instructional objective.

6. Display a second transparency to focus the students' attention on the five criteria for a good behavioural objective:

(a) Student - centredness - They should describe what the student - and not the teacher - will do to achieve the objective.

(b) Observability - The verbs used should describe overt behaviour (that can be seen) - list, discuss, explain . . . . not - understand, know . . . . .

(c) Measurability - What the student does should be measurable - how many, how far, how often, how long . . . . .

These three are simple ones, used more constantly than the two following:

(d) Stating conditions of performance - the objective should describe under what conditions the student will perform - by consulting the recipe, through discussion . . . .

(e) Stating an acceptable standard of performance - for example: identify three out five foods, state all the causes . . . .

Encourage the students to formulate 3 behavioural objectives similar to the above, from NCC materials of their choice.

7. Discuss the school of thought which is against the use of behavioural objectives:

They are deemed by the opponents to deprive both teacher and student of opportunities to delve into those areas of learning which, though worthwhile, are not readily measurable. Such areas include the changing of attitudes, aesthetic appreciation, thinking, value acquisition and decision - making.

Secondly, "human behaviour in actuality is much broader than ..... the sum of specific bits of behaviour learned in isolation. The behaviourists. . . . . hold that there are no broad outcomes that cannot be stated in testable, overt behaviours. This assumption is denied by educational philosophers and many scholars in various disciplines." (Saylor and Alexander, 1974).

Some staunch supporters of this view are Elliot Eisner ("Instructional and Expressive Educational Objectives: Their Formulation and Use in Curriculum," in Stake pp. 1 - 31) and James MacDonald ("Myths about Instruction" Educational Leadership, May 1965)

The writer's view is that a compromise could be reached by regarding observability as an important criterion for the statement of instructional objectives. (We need to, and can, observe in our pupils, a change of attitude, appreciation and value judgements though we cannot measure them). This would allow Eisner's group to proceed from here with instruction, while Mager's group breaks the instructional objectives into more specific, measurable behavioural objectives. Popham, though one of the most vociferous advocates of behaviourally stated objectives, relented enough to state:

"However, there are some important goals which we have for our children which are currently unassessible. To the extent that such goals are extremely meritorious, they are worth the risk of our pursuing them even if we cannot reliably discern whether they have been accomplished." (Popham, 1972)

EVALUATION

Let the students refer to their notes and other reference materials to do the following:

1. Name the three elements of curriculum.

2. What are the three levels of objectives? Discuss the importance of each level.

3. Choose a unit from any of the NCC materials and use it to illustrate the relationship between objectives and educational aims.

4. List and discuss five criteria for a good behavioural objective. Illustrate three of your criteria with examples based on the unit selected in (3) above.

5. In about 5 - 10 lines, discuss the two schools of thought represented by Eisner and Mager on the use of behavioural objectives.

LESSON 4 - ELEMENTS OF CURRICULUM: CONTENT AND METHODOLOGY

OBJECTIVES

The student will:

1. discuss the importance of relating content to objectives.
2. use a chart to illustrate the relationship between educational aims, objectives and content.
3. apply a selected method or technique to identify at least 3 criteria for the selection of content.
4. discuss 2 methods of delivering content with one example of use.

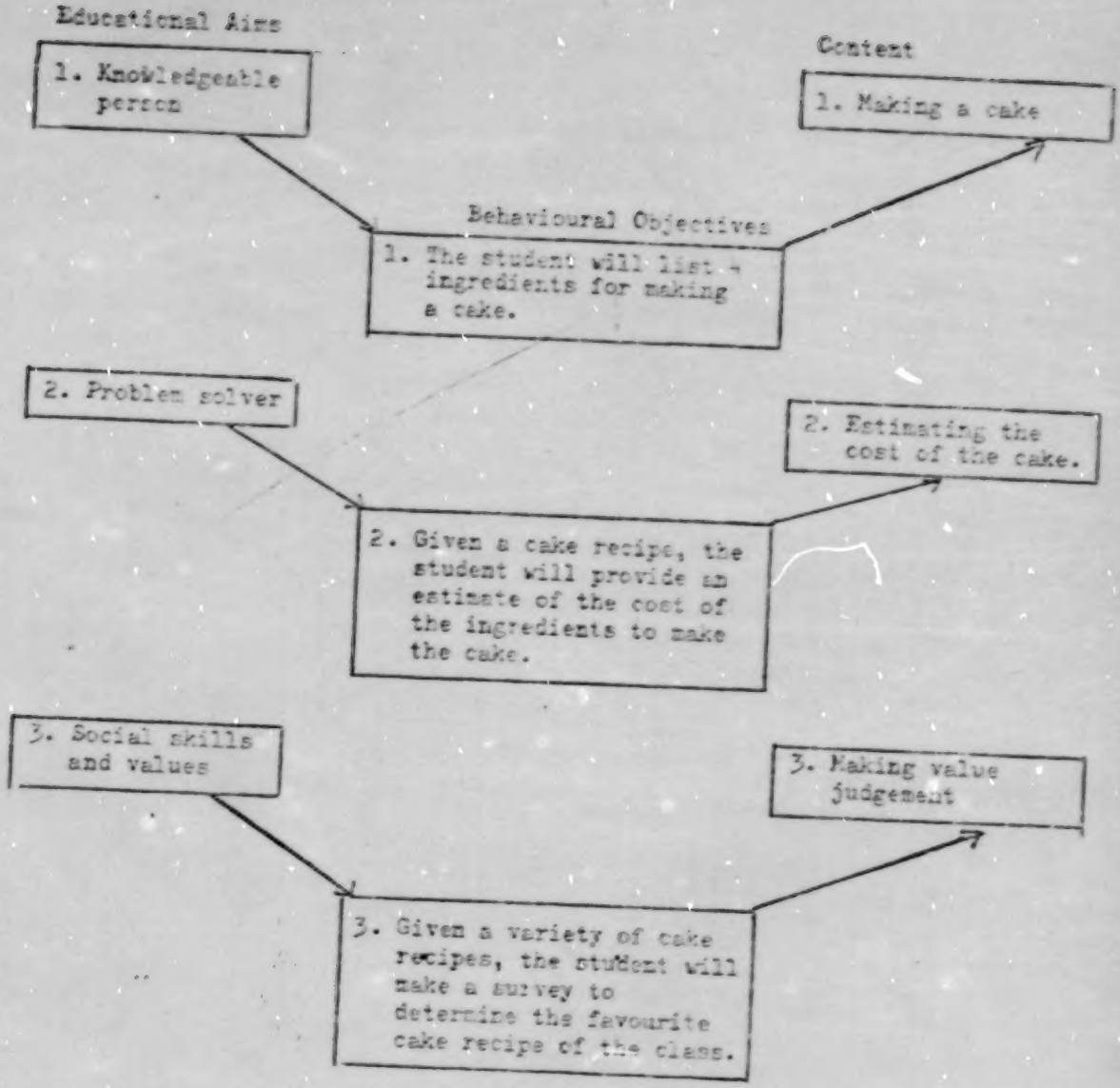
SUGGESTED MATERIALS

Appendix B (National Goals and Educational Objectives), a chart showing the relationship between educational aims, objectives and content, flash cards, red and black felt-tipped pens, a transparency of "Tylers' Four Basic Questions on Curriculum Development."

SUGGESTED PROCEDURE

1. Refer the students to Tyler's Four Basic Questions and use it to review the elements of curriculum. Discuss with the class the importance of relating content to objectives, namely, to facilitate the achievement of stated objectives.

2. Display the following chart illustrating the relationship between educational aims, objectives and content:


Educational Aims
1. Knowledgeable person
2. Problem solver
3. Social skills and values
Behavioural Objectives
1. The student will list 4 ingredients for making a cake.
2. Given a cake recipe, the student will provide an estimate of the cost of the ingredients to make the cake.
3. Given a variety of cake recipes, the student will make a survey to determine the favourite cake recipe of the class.
Content
1. Making a cake
2. Estimating the cost of the cake.
3. Making value judgement

Relationship between educational aims, objectives and content.

- Discuss the above diagram with the students, by asking such questions as:

  (a) How will the student develop qualities of:

  - a knowledgeable person? (By listing 4 ingredients for making a cake.)
  - a problem solver? (By estimating cost -------).
  - socially acceptable skills and values (By making attitudinal surveys

(b) In what domains are the three behavioural objectives respectively? (cognitive, psychomotor and affective)

(c) Select and identify three criteria for a good behavioural objective from any one of the objectives discussed.

(d) Keeping the same educational aims, formulate three objectives of your own for each aim. Suggest content that will help the student to achieve the stated objectives.

(e) Now, select an educational aim from Appendix B and use it to formulate one instructional objective and content based on it.

3. Distribute the following handout on criteria for the selection of worthwhile content:

Curriculum developers are confronted with a battery of content or learning activities to choose from, in order to help students attain stated objectives. Hilda Taba, (1962) a celebrated curriculum specialist states:

> "If the curriculum is to be a useful prescription for learning, its content and the outcomes it pursues need to be in tune with the social and cultural realities of the time. Applied to the selection of content, this criterion further selects from the scientifically valid and fundamental knowledge that which is also significant. . . ."

Scheffler proposes that:

> "The guiding principle ------ is that educational content is to help the learner attain maximum self-sufficiency as economically as possible."

He states further that:

> "Content should have maximum generalizability or transfer value."

It is impossible to exhaust all criteria for the selection of content, but the following are representative of the more important ones, in addition to the above:

- Content should be explicitly related to the objectives - selected for its ability to assist the student to achieve the stated objectives.

- It should be within the developmental capability of the student - based on what the student can handle at a given physical and intellectual developmental stage.

- It should be significant - prepare the students for a satisfying, productive life.

- It should be comprehensive - contain information about a broad spectrum of content areas.

- It should have enough depth to enable the student to more fully develop key concepts and exercise the mind in order to achieve the objectives of learning.

- Allow 20 minutes for the students to read the handout. Then use "Every Pupil Response Technique" to reinforce student understanding of the criteria as follows:

  Prepare single Yes/No or True/False flash cards with felt pens- Red for 'Yes' or 'True' and Black for 'No' or 'False'. Read a series of statements covering roughly the content of the handout. Have students hold up the correct response.
  For example:

  - Content should focus on one objective only (Black)
  - Scheffler recommends economy as an important criterion for content selection (Red)
  - Content should be related to stated objectives (Red)
  - The criterion of comprehensiveness can be demonstrated by teaching History and Geography separately (Black)

4. Discuss some criteria for the selection of methods. Explain that the nature of the content as well as the needs of the student dictate what methods are best to use, always bearing in mind that the best methods of instruction are those which enhance the student's chance of achieving stated objectives. Inquiry, discovery and observation methods are popular choices for scientifically biased content. Lecture and discussion methods are more suitable for older students, while role play and mime appeal to younger pupils.

EVALUATION

1. Why is it important to relate content to stated objectives?

2. Verbally illustrate the relationships between Educational aims, objectives and content by giving one good example similar to the ones discussed in the chart.

3. Identify 3 important criteria for selecting content by responding correctly in "Every Pupil Response Technique."

4. Select two of the following methods and state where they can be effectively used:

Lecture, Inquiry, Role play, discovery, mime.

LESSON 5 - THE ELEMENTS OF CURRICULUM: EVALUATION

OBJECTIVES

The student will:

1. discuss the importance of relating evaluative devices to objectives.
2. discuss two types of evaluation.
3. evaluate NCC commercially published instructional materials by using stated criteria.

SUGGESTED MATERIALS

NCC Achievement Test Reports (available at the Resource Centre and at NCC) Commercially published NCC Teacher's Guides and Pupil's Workbooks for Grades 2 and 3.

SUGGESTED PROCEDURE

1. Review Tyler's four questions. Focus the students' attention on the last question 'How can we determine whether these (underlining, mine) purposes are being attained?" This question stresses that the assessment should be done in relation to those purposes that have been predetermined or stated.

   - Discuss with the students that curriculum evaluation is the process of assessing how far the stated objectives of education are being or have been attained. It is important that evaluation be carried out on stated objectives because it is only by assessing whether the stated objectives have been achieved that necessary adjustments and restructuring of the curriculum can result in improvement of the quality of education.

2. Discuss types of evaluation. Let the students brainstorm on methods of assessing student progress - oral and written tests during term-time,

end-of-year examinations. Explain that there are two major types of evaluation, namely, formative and summative evaluation.

* Formative procedures are the feedback arrangements which enable planners and implementers of curriculum to assess how far the objectives of the programme are being met. On the basis of the feedback, they make adjustments and improvements throughout the life of the programme. This type of on-going evaluation is seen by many educationists as having real potential for curriculum improvement (Cronbach, 1963). Formative evaluation calls for the interaction of evaluators with planners and implementers. In the classroom situation, it involves the interaction of the teacher with his students in a meaningful way, in so far as it enables the teacher to assess how far the students are achieving the objectives; it enables the student to know how well he is doing.

* Summative evaluation is carried out at the end of the programme, to assess the total effect of the curriculum programme. It provides feedback for policy makers and planners to decide whether to modify, eliminate or replicate the programme in another population. In the classroom situation, summative evaluation is carried out as a placement or grading tool, in end-of-year examinations. In this instance, it is again of paramount importance for the evaluation to assess stated objectives, in order to keep within the scope of predetermined levels.

- Distribute NCC Achievement Test Reports to small groups of students. Let each group find out:

  * if the evaluation devices test stated objectives
  * whether the reports are summative or formative, and why.
  * pertinent areas for curriculum improvement. Discuss the findings in the large group.

3. Distribute NCC commercially published Teacher's Guides and Pupils' Workbooks for Grade 3. Place the following overhead transparency listing criteria for evaluating instructional materials and allow time for the students to discuss it. Ask groups to select at least 2 stated criteria from "A" and 3 from "B" and use them to evaluate the materials.

Criteria for Evaluating Instructional Materials

A. Structional Characteristics:

- Content should be related to instructional objectives.
- Content should be valid and reliable.
- Content should be logically organized.
- Content should conform to the principles of learning and developmental stages.
- Language used should be suitable to the grade level.
- Learning tasks should be appropriately sequenced.
- Materials should allow for immediate feedback and appropriate practice.
- Materials should ensure the development of critical thinking, provide multi-sensory stimulus and have transfer value.

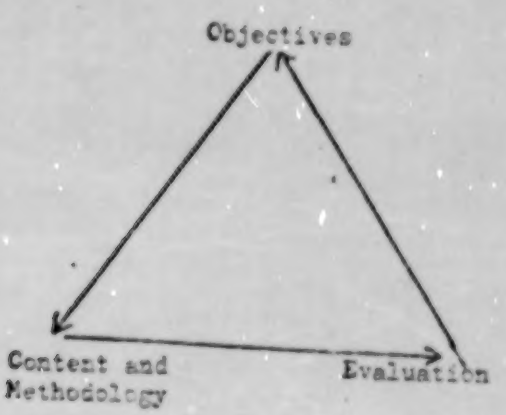
B. Practical Characteristics

Criteria to check for are:

- Cost range the price must not be prohibitive.
- Durability.
- Ease of use.
- Attractiveness.
- Adequacy of guide/instruction.
- Easy replacement of lost parts.

Let groups report their findings. Stress during the reporting session, the importance of first stating the objectives of each group's evaluation.

Diagram of the Elements of Curriculum



EVALUATION

1. Why is it important to relate evaluation to stated objectives?

2. What are the two major types of evaluation? Discuss them giving their curriculum and classroom application.

3. Write down 3 findings you made when evaluating NCC materials in class, and propose at least one improvement.

UNIT 2 - TYPES OF TESTS AND TEST CONSTRUCTION TECHNIQUES

GUIDE TO THE UNIT

This unit seeks to illustrate aspects of testing and to discuss categories and types of tests. More importantly, it is an attempt to help student teachers to be proficient in test construction by using test specification tables, and applying some practical suggestions. Discussions on the merits and demerits of essay type and objective type tests will emphasize the fact that there are reasons for selecting specific types of tests. These reasons are related directly to the objectives one is trying to achieve in the learning situation.

INSTRUCTIONAL OBJECTIVES

By the end of the unit, the student will be able to:

1. differentiate between dimensions and types of tests.
2. critique selected NCC and other materials.
3. discuss the advantages and disadvantages of objective and essay type tests.
4. construct and interpret tables of specification.
5. construct good test items of various categories.

LESSON 1 - DIMENSIONS OF TESTING

OBJECTIVES

The student will:

1. list four dimensions of testing and examples.
2. discuss the purpose of each dimension.

SUGGESTED MATERIALS

NCC instructional materials, NCC Achievement Test Reports (Available at NCC and at the Teacher's Centres)

SUGGESTED PROCEDURE

Give students a "pop" quiz. After it is finished ask students how they felt about it. List reactions on the board. Then discuss the general objective of testing, namely, to evaluate and improve learning and instruction. Discuss the dimensions of testing with the students, encouraging their active participation. Check to see if the "pop" quiz that was given fits these criteria. There are four aspects of testing, namely, placement, formative, diagnostic and summative testing.

1. Placement Testing

This type of test is designed to measure:

(a) whether a student possesses the prerequisite skills; for example:

- to test for "readiness" in a Grade I class.
- to group students homogeneously according to ability.
- to find out if a new class has effectively covered the requirements of the preceding class.

(b) Placement testing is also designed to measure to what extent students have achieved the stated objectives of a planned instruction. Invite the students to give examples.

2. Formative Testing

It is the familiar type of testing, given periodically during a lesson or course, to monitor student progress. It gives valuable feedback to the teacher as to how well the students understand a given topic or course. It also helps the students to know how well they are doing. The results are used for immediate adjustment or reinforcement for the improvement of learning and instruction. Examples: written exercises at the end of a lesson or unit. Get more examples from the class.

3. Diagnostic Testing

Diagnostic testing, as the name implies, is done to determine the nature and cause of persistent learning difficulty. For example, if a Grade I pupil persistently fails to master a Mathematical operation, the teacher could design a diagnostic test to find out if the difficulty is caused by the method of approach, the instructional material or some previous learning discrepancy of the pupil. Making a correct diagnosis of the problem places the teacher in the best position to assist the pupil.

4. Summative Testing

It is given at the end of a course or unit of instruction. Its primary use is assigning grades or certifying mastery of instructional objectives; for example, end-of-year examinations of all levels.

- Let the students examine some of the NCC reports and identify some of the aspects of testing discussed above.

ACTIVITIES

Discuss the following with the class, or do it as a written exercise:

1. Placement Testing

(a) Do you believe in waiting for pupil 'readiness'?

(b) Suggest three things a teacher could provide to help a pupil towards "readiness" (a conducive environment, learning experiences, teacher/peer support).

(c) Discuss points for and against "homogenous" grouping of pupils.

(d) What steps should a class teacher take to help pupils who have been found deficient in pre-requisite learning:

(i) Push them back a grade ?

(ii) Confront their previous class teacher?

(iii) Find time to gradually help them to catch up?

2. Formative Testing

(a) What is the best use of formative testing?

(b) Why is it important for the teacher? the student?

(c) Discuss if the practice of letting pupils mark each others' work, contributes to the improvement of learning and instruction.

3. Diagnostic Testing

(a) Rank order the following steps of diagnostic testing, omitting the ones which are seen not to benefit the student.

Teacher:

(i) randomly sets what he intends to be a diagnostic test.

(ii) works with a pupil or pupils in a humane teacher/pupil relationship.

(iii) designs a strategy for helping the pupil(s) overcome the problem.

(iv) discovers persistant weakness in working with "sets".

(v) ignores the problem or advises pupil(s) to get extra help at home.

(b) Discuss the steps you omitted and why.

4. Summative Testing

(a) Discuss the importance of summative testing and its results to:

- the teacher
- the student
- the parent

(b) What are 2 of its disadvantages to the student?

(c) Discuss one alternative for the promotion of students to the next class. (Automatic promotion? Continous assessment?)

- Put this summary on the overhead projector for visual student input.

UNIT 2 - TYPES OF TESTS AND TEST CONSTRUCTION TECHNIQUES

GUIDE TO THE UNIT

This unit seeks to illustrate aspects of testing and to discuss categories and types of tests. More importantly, it is an attempt to help student teachers to be proficient in test construction by using test specification tables, and applying some practical suggestions. Discussions on the merits and demerits of essay type and objective type tests will emphasize the fact that there are reasons for selecting specific types of tests. These reasons are related directly to the objectives one is trying to achieve in the learning situation.

INSTRUCTIONAL OBJECTIVES

By the end of the unit, the student will be able to:

1. differentiate between dimensions and types of tests.
2. critique selected NCC and other materials.
3. discuss the advantages and disadvantages of objective and essay type tests.
4. construct and interpret tables of specification.
5. construct good test items of various categories.

LESSON 1 - DIMENSIONS OF TESTING

OBJECTIVES

The student will:

1. list four dimensions of testing and examples.
2. discuss the purpose of each dimension.

SUGGESTED MATERIALS

NCC instructional materials, NCC Achievement Test Reports (Available at NCC and at the Teacher's Centres)

SUGGESTED PROCEDURE

Give students a "pop" quiz. After it is finished ask students how they felt about it. List reactions on the board. Then discuss the general objective of testing, namely, to evaluate and improve learning and instruction. Discuss the dimensions of testing with the students, encouraging their active participation. Check to see if the "pop" quiz that was given fits these criteria. There are four aspects of testing, namely, placement, formative, diagnostic and summative testing.

1. Placement Testing

This type of test is designed to measure:

(a) whether a student possesses the prerequisite skills; for example:

- to test for "readiness" in a Grade I class.
- to group students homogeneously according to ability.
- to find out if a new class has effectively covered the requirements of the preceding class.

(b) Placement testing is also designed to measure to what extent students have achieved the stated objectives of a planned instruction. Invite the students to give examples.

2. Formative Testing

It is the familiar type of testing, given periodically during a lesson or course, to monitor student progress. It gives valuable feedback to the teacher as to how well the students understand a given topic or course. It also helps the students to know how well they are doing. The results are used for immediate adjustment or reinforcement for the improvement of learning and instruction. Examples: written exercises at the end of a lesson or unit. Get more examples from the class.

3. Diagnostic Testing

Diagnostic testing, as the name implies, is done to determine the nature and cause of persistent learning difficulty. For example, if a Grade I pupil persistently fails to master a Mathematical operation, the teacher could design a diagnostic test to find out if the difficulty is caused by the method of approach, the instructional material or some previous learning discrepency of the pupil. Making a correct diagnosis of the problem places the teacher in the best position to assist the pupil.

4. Summative Testing

It is given at the end of a course or unit of instruction. Its primary use is assigning grades or certifying mastery of instructional objectives; for example, end-of-year examinations of all levels.

- Let the students examine some of the NCC reports and identify some of the aspects of testing discussed above.

ACTIVITIES

Discuss the following with the class, or do it as a written exercise:

1. Placement Testing

(a) Do you believe in waiting for pupil 'readiness'?

(b) Suggest three things a teacher could provide to help a pupil towards "readiness" (a conducive environment, learning experiences, teacher/peer support).

(c) Discuss points for and against "homogenous" grouping of pupils.

(d) What steps should a class teacher take to help pupils who have been found deficient in pre-requisite learning:

(i) Push them back a grade ?

(ii) Confront their previous class teacher?

(iii) Find time to gradually help them to catch up?

2. Formative Testing

(a) What is the best use of formative testing?

(b) Why is it important for the teacher? the student?

(c) Discuss if the practice of letting pupils mark each others' work, contributes to the improvement of learning and instruction.

3. Diagnostic Testing

(a) Rank order the following steps of diagnostic testing, omitting the ones which are seen not to benefit the student.

Teacher:

(i) randomly sets what he intends to be a diagnostic test.

(ii) works with a pupil or pupils in a humane teacher/pupil relationship.

(iii) designs a strategy for helping the pupil(s) overcome the problem.

(iv) discovers persistant weakness in working with "sets".

(v) ignores the problem or advises pupil(s) to get extra help at home.

(b) Discuss the steps you omitted and why.

4. Summative Testing

(a) Discuss the importance of summative testing and its results to:

- the teacher
- the student
- the parent

(b) What are 2 of its disadvantages to the student?

(c) Discuss one alternative for the promotion of students to the next class. (Automatic promotion? Continous assessment?)

- Put this summary on the overhead projector for vusial student input.

SUMMARY

DIMENSIONS OF TESTING

The purpose of testing is to improve learning and instruction. Some aspects of testing are:

1. Placement testing - for measuring:
   a) whether students possess the prerequisite knowledge and skills.
   b) to what extent students have achieved the objectives of the planned instruction.

2. Formative testing - given periodically during instruction to monitor pupil learning progress thus giving on-going feedback to both pupil and teacher.

3. Diagnostic testing - given to determine the nature of persistent learning difficulty.

4. Summative testing - given at the end of a course, to assign grades or certify pupil mastery of instructional objectives e.g. final examinations given at the end of the year at various grade levels.

EVALUATION

What are the four dimensions of testing. Discuss each of them giving their uses.

LESSON 2 - BASIC STEPS IN CLASSROOM TESTING

OBJECTIVES

The student will:

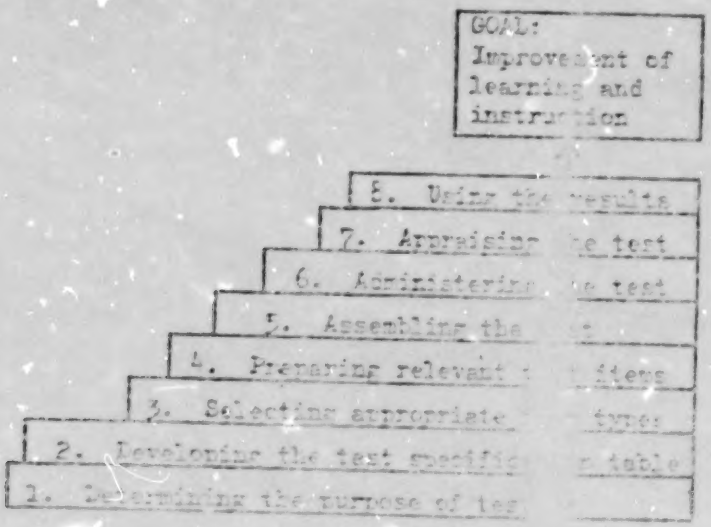
1. name 8 steps in the construction of tests for classroom testing.
2. discuss and critique a lesson selected from NCC materials with regard to
   - dimension
   - evaluative devices
3. construct a lesson test, using the 8 steps.

SUGGESTED MATERIALS

A selection of NCC materials, a chart showing 8 steps in constructing tests, a test specification table.

SUGGESTED PROCEDURE

- Review the major objective for testing, and the dimensions involved.
- Display the chart below, showing 8 steps in classroom testing.



Steps in developing classroom ts.

Discuss each step with the active participati of the class as follows:

1. Purpose

In this step, the teacher or classroom teacher s why he wants to test the students.

- Review the four dimensions discussed in the previous lesson - placement, formative, diagnostic and summative - asking such questions as:

  * Which type is used to measure student understanding?

  * Which type is used for promoting students to the next class?

  * At what time of the school year is placement testing most appropriate?

2. Development of a Test Specification Table

At this stage the tester/teacher states the objectives of the test and uses them to make the test specification table. The purpose of drawing up a test specification table is to help the tester to:

* test all the pertinent objectives of the lesson or unit for which the test is intended.

* appraise and test the relevant content and objectives.

This is a very important step which gives balance to the test. Many poor examination results can be traced to poor or non-existant test specification tables.

Steps

- Compile a list of all stated objectives for the course, unit or lesson for which the test is intended.

  Outline the content.

- Prepare a test specification table like Table 1 below:

TABLE 1

Table of Specification for a Summative Social Studies Test

Objectives / Content	Knows Common terms	Understands principles	Applies principles	Interprets principles	TOTALS
Food	3	3	5	5	16
Clothing	3	2	2	3	10
Transportation	3	3	5	4	15
City Life	5	8	8	4	25
Farm Life	6	9	10	9	34
TOTALS	20	25	30	25	100

Take time to discuss the table with the students, for example, this tester appears to:

- put more weight on the content area of farm life (34 items).
- place more emphasis on the objective of applying principles (30 items).
- give the least weighting to the objective of knowing common terms. (20 points)

Now put the following test specification table on a transparency, and let the class interpret it in terms of emphases, weighting and the objectives being evaluated:

SUMMATIVE TEST FOR SCIENCE (NCC)

TABLE OF SPECIFICATION

DECEMBER, 1983

Content / Objectives	Unit 1 Plants	Unit 2 Animals	Unit 3 Health & Body	Unit 4 Matters & Energy	Unit 5 Atmosphere & Weather	Unit 6 Earth's Crust	Unit 7 Astronomy	TOTA
Factual Information	(2)	(2)	(2)	(2)	(1)	(2)	(2)	13
Explanation	(2)	(1)	(1)	(1)	(1)	(1)	(1)	8
Prediction	(1)	(1)	(1)	(1)	(1)		(1)	6
Calculation		(1)	(1)		(1)	(1)		4
Values	(1)	(2)	(1)	(2)	(1)	(2)		9
Totals	6	7	7	5	5	6	4	40

3. Selecting Appropriate Test Items

Select test items for measuring a particular objective. The number selected for each objective will be that shown in the table of specification.

- Refer to the specification tables and ask the students to randomly name objectives and content, and state how many test items are planned for each in the table.

4. Preparation of Test Items

In preparing test items, observe the following rules:

- Each test item must measure what it is designed to measure.
- Items must match the intended outcomes.
- The sample of test items should be representative of the various areas to be tested. Poor representativeness lowers the validity of the test.

- At this point, distribute some NCC materials. Let groups of students select a lesson and examine it:

- Note the objectives.
- Discuss if the evaluative devices suggested in the materials match the stated objectives.
- Recommend improvements or adaptations where necessary.

Let groups share their findings with the rest of the class. Supervise and evaluate the work.

5. Assembling the Test.

Points to remember when putting test items together are:

- eliminate all irrelevant barriers to the answer, such as ambiguity, illegibility and unnecessary long-windedness

- avoid unintended clues.
- make sure the time allocation is reasonable.

6. Administering the Test

- Conditions for taking the test should be the same for all students taking it:

  proper lighting, ventilation and a friendly atmosphere.

- Explain all the conditions and requirements for the test.
- Motivate the students before and during the time the test is being administered.

7. Appraising the Test

Find out whether the time allocation was enough.

Score the test and identify item difficulty level.

8. Using the Results

The way the results are used depends on the objective for testing. If the objective was to improve learning and instruction:

- carefully appraise the results, as above.
- diagnose the causes of the difficulty.
- design remedial measures, accordingly.

ACTIVITY

Let each student use the NCC material chosen for step 4 (selection), to follow these 8 steps. Supervise and evaluate the students' work.

SUMMARY

- The chart showing the steps for classroom testing (on overhead).

- The test specification tables.

EVALUATION

On-going evaluation as suggested in the procedure.

LESSON 3 - ESSAY TYPE TESTS AND THEIR CONSTRUCTION

OBJECTIVES

The student will:

1. discuss types of essay questions.
2. discuss the advantages and limitations of essay type tests.
3. work in a group to construct 5 essay type questions based on selected NCC tables of specification for the 1983 summative tests.
4. evaluate the work of other groups.

SUGGESTED MATERIALS

A selection of NCC units, NCC tables of specifications, past examination papers.

SUGGESTED PROCEDURE

Distribute some past examination papers. Ask the students to determine the dimension of the test as well as whether the questions are objective or essay type.

- Discuss the difference between essay and objective type questions.
  - Essay type questions require longer responses than objective types.
  - Essay type questions require the student to be creative and to express his opinions and feelings on issues. Objective type questions, on the other hand, require single responses that are short and to the point; there is no room for creativity, organization or synthesis. There is only one correct answer.
- Discuss the merits and demerits of essay type questions.

Merits:	Demerits
• They encourage creativity, organization and synthesis. • They are fewer in number and easier to set. • They present a more democratic way of test-taking by allowing freedom of expression, for example by giving opinions and expressing feelings.	• Though the questions are fewer in number, they take longer and demand more from the student in terms of creative and organizational ability. • The scoring (marking) can be very subjective, depending as it does on the moods and general outlook of the scorer. • They are poor in measuring knowledge of facts.

- Discuss types of essay tests:

The essay question is commonly viewed as a single-item type. The classification of essay questions is based on the amount of freedom of response allowed to the students:

1. Extended Response Type

Here, the student is given almost unlimited freedom in making his response.

Example: Describe what you think should be the role of "Ligoqo" in the government of Swaziland. Let the students suggest more examples of this nature.

2. Restricted Response Type

Limitations are placed on the nature, length or organization of student responses.

Example: State the effect of high heat on proteins, using meat and eggs to illustrate your answer.

Let the students supply more examples of restricted response type questions.

ACTIVITY

Divide the class into small groups. Let each group select an appropriate unit from NCC materials and use the NCC tables of specification in lesson 2 to construct 2 extended and 3 restricted type questions. Supervise the work. Let each group present their questions for evaluation by the teacher and class.

SUMMARY

ESSAY TYPE TESTS

1. TYPES OF ESSAY QUESTIONS:

   1. Extended - response type

      Example - Discuss the place of vitamins in the diet.

   2. Restricted response type

      Example - In one page, discuss one cause of the "Land Deal" conflict between Swaziland and the Republic of South Africa (RSA), restricting your comments to the Ngwavuma area.

ADVANTAGES AND LIMITATIONS

ADVANTAGES	LIMITATIONS
1. Opportunities for creativity, organization, synthesis and self-expression. 2. Single item focus to examine on.	1. Answering and scoring are time consuming. 2. Scoring is subjective. 3. Poor in measuring knowledge of facts.

EVALUATION

1. On-going evaluation as indicated in the procedure.

2. Evaluation of selected group efforts on the construction of essay type questions. Checking of the following:

   - representative essay type questions.
   - matching of test items to objectives.
   - absence of ambiguity and other barriers.

3. Name two advantages and one disadvantage of essay type questions.

LESSON 4 - TYPES OF OBJECTIVE TESTS

OBJECTIVES

The student will:

1. list types of objective tests
2. discuss each type and give an example of each.
3. construct his own table of specification and objective type questions using selected NCC materials.

SUGGESTED MATERIALS

A selection of NCC units.

SUGGESTED PROCEDURE

- Explain that objective tests are those that deal with facts, uninfluenced by personal feelings or opinions.
- Discuss the advantages and disadvantages of objective type tests as follows:

Advantages

1. Scoring is highly objective.
2. Pupil response is controlled.
3. Content validity (representativeness) is high if well-constructed, because of the wide coverage of content.
4. Reliability (consistency) is high, due to the objectivity in scoring.
5. They are good for measuring knowledge of facts.

Disadvantages

1. Objective tests are very poor in measuring the ability to select, organize and synthesize.

2. They are very difficult to set.

3. They require speed in reading - and so are sometimes a disadvantage for second language.

- Discuss why points 1-5 are considered advantages: for example:

* Objectivity gives a fair chance to all students, regardless of where and by whom the scoring is done.

* Controlled student responses removes subjectivity.

* Content validity gives a fair chance of passing the test to the students who have studied the content.

- Using the information in this and the previous lesson, let the students compare the two types of tests. On the strength of the comparison, let them recommend how to make the best use of the two types (probably to combine them).

Types of Objective Tests

There are two major types of Objective tests, namely, supply and selection types.

a) Supply Types

(i) Short answer tests

Examples: Who are the "Semanti"?

What is the value of X in the equation $3x + 4 = 10$?

(ii) Completion tests

Examples: The only Teacher Training College that offers Home Economics to men and women students in Swaziland is _____ TTC.

Genesis is the first book of the _____ _____?

Let the students give more examples of supply types.

b) Selection Types

(i) True/False or Alternative Response

Examples: T/F - Manzini is the "hub" of Swaziland.

Yes/No - Acid turns litmus paper red.

(ii) Matching

Example:

Match the following words in A (premises) with the correct parts of speech in B (responses) by putting the correct letter next to the correct numeral:

A		B	
1.	dog	a)	adjective
2.	and	b)	advert
3.	jump	c)	conjunction
4.	ale	d)	preposition
5.	quickly	e)	noun
		f)	pronoun
		g)	verb

- To construct good matching questions:

* give clear instructions of what the student is expected to do to answer the question. (such as in "match ----- numeral", above).

always provide more responses than premises (such as 5 premises against 7 responses, above)

Invite the students to provide more examples of the two selection types dealt with above.

(iii) Multiple Choice

Multiple choice questions are highly structured. Their construction calls for great skill and experience. The next lesson is devoted to the development of multiple choice test items.

Example: In the question $2x + 4 = 9$, then $2x$ means:

A 2 plus x
B 2 minus x
C 2 divided by x
D 2 multiplied by x

ACTIVITY

1. Let each student construct and identify 10 objective type questions discussed above, using tables of specification and a relevant NCC unit. Supervise and evaluate the work during class.

2. Let the students work in groups to suggest at least two changes they would make either in the objectives, content and methodology or evaluation sections of the selected unit. (Refer them to Unit 1, Lesson 5 for criteria for evaluating instructional materials.)

Allow time for groups to present this part of their work to the whole class. Evaluate their work with the other class members.

SUMMARY

TYPES OF OBJECTIVE TESTS

1. Supply types
   - (i) Short answer type
   - (ii) Completion type

2. Selection Types
   - (i) True/False or Alternative response.
   - (ii) Matching type
   - (iii) Multiple choice type

EVALUATION

Supervision and evaluation of students' work in activity 1-2 above.

LESSON 5 - CONSTRUCTION OF MULTIPLE CHOICE ITEMS

OBJECTIVES

The student will:

1. identify some of the terms used in multiple test items.
2. critique selected multiple choice items.
3. construct multiple choice questions using selected NCC materials.

SUGGESTED MATERIALS

Samples of multiple choice items, NCC units and tables of specification.

SUGGESTED PROCEDURE

1. Choose one example of a multiple choice item from those done in previous lesson to illustrate some of the terminology used in multiple choice items as follows:

   - Discrete item - a single multiple choice question including the choices.
   - Stem - the important part of the item in which the task is stated. It takes the form of a statement, question, directions or an incomplete statement to be completed with one option.
   - Options - all the choices given in an item.
   - Key - the correct answer
   - Distractors - the incorrect options

   Example: What is the meaning of "listen"? - stem

   A. To look main ideas
   B. To hear noise
   (C.) To hear with attentiveness
   D. To hear everything

   A, B and D - options
   C - Key
   A, B and D - distractors
   The whole example - discrete item.

Select more examples and let the students identify the various parts.

SUGGESTIONS FOR CONSTRUCTING ITEMS

- let the students take the following notes, then use examples to illustrate some of the points made:

The Item as a Whole

a) Select an idea or concept that is important for a student to know.

b) Construct the item around an idea or problem that is clearly presented in the stem, and to which all the options relate.

c) Make sure the item has only one correct answer.

d) Use simple, direct language, free from ambiguity.

e) Do not use double negatives in an item.

The Stem

a) State the stem as a question, a statement or directions.

b) Define the task (what is to be done) clearly.

c) If you use a negative in the stem, capitalize it (NOT).

The Options

These are very important as they decide item difficulty.

a) State them clearly and concisely.

b) Do not give clues.

c) Avoid making the key constantly longer than the other options.

d) Avoid giving "clues" such as "always" "all" "every" "never", because things are seldom universally true.

e) Do not repeat, in the options, information that can be placed in the stem.

f) Do not include options that are obviously wrong and "wide off the mark".

Select more examples and let the students identify the various parts.

SUGGESTIONS FOR CONSTRUCTING ITEMS

- Let the students take the following notes, then use examples to illustrate some of the points made:

The Item as a Whole

a) Select an idea or concept that is important for a student to know.

b) Construct the item around an idea or problem that is clearly presented in the stem, and to which all the options relate.

c) Make sure the item has only one correct answer.

d) Use simple, direct language, free from ambiguity.

e) Do not use double negatives in an item.

The Stem

a) State the stem as a question, a statement or directions.

b) Define the task (what is to be done) clearly.

c) If you use a negative in the stem, capitalize it (NOT).

The Options

These are very important as they decide item difficulty.

a) State them clearly and concisely.

b) Do not give clues.

c) Avoid making the key constantly longer than the other options.

d) Avoid giving "clues" such as "always" "all" "every" "never", because things are seldom universally true.

e) Do not repeat, in the options, information that can be placed in the stem.

f) Do not include options that are obviously wrong and "wide off the mark".

g) Vary the position of the key.

EXAMPLES OF ACTIVITIES

Choose any of the suggested hints for constructing multiple choice items, and give exercises, for example.

1. Suggest improvements in the following items:

(a) What factors interfere with understanding what people say?

A. Laziness, the way we feel, feedback
B. Vowels, consonants, heat
C. Cold, boredom, noises
D. Lips, teeth, tongue

(The distractors are too obvious)

(b) Why do we teach siSwati to pupils?

A. To answer questions
B. To pass examinations
C. To enable them to appreciate their own culture
D. To read textbooks.

((i) The key is longer than the other options
(ii) The stem did not specify that pupils should choose the best answer, because all options are possibilities.)

2. Distribute past papers with multiple choice items and ask the students to comment on them. (Point out the good/bad ones and give reasons for their comments)

3. Ask the students to construct 5 multiple choice items, keeping in mind the suggested techniques.

SUMMARY

CONSTRUCTION OF MULTIPLE CHOICE ITEMS

Terminology: - - discrete item, stem, key, distracters, options.

Some Techniques:
- choose important concepts.
- use 4 - 5 options in an item.
- use clear, concise language.
- avoid giving "cues" and "clues".
- do not use double negatives.
- avoid making the key longer than the other options.
- do not use distracters that are obviously wrong.

EVALUATION

1. Choose a multiple choice item and write the terms used for each part.
2. Using past examination papers, improve a multiple choice item which seems to need improvement. Justify your suggestion.
3. Construct 5 good multiple choice items based on a selected NCC unit.

CONCLUSION

The evidence collected during the study leaves no doubt as to the need for introducing Curriculum Studies at TTC level. However, the concern expressed throughout seemed to be lack of time in the TTC time to accommodate the course.

As for the nature of the course, the respondents emphasized two points: one, that the course should not be academically biased, but as practically oriented as possible, taking note of the classroom situation.

Another point that came out clearly, was the need to involve inspectors more in the curriculum development effort. The feeling expressed was that they were lacking in the rudiments of curriculum development they would not play their leadership role effectively in this area.

Lastly, the NCC and its staff were seen as another resource that could help to give the students practical guidance in curriculum development, as Table 7 indicates.

RECOMMENDATIONS

1. It is recommended that Curriculum Studies become an integral part of professional studies. To counteract the time constraint, the core concepts of curriculum could be taught in professional studies and the practical part be taught in each subject area.

2. It is recommended that Government update the TTC libraries as well as those of the Teachers' Centres, by including a good selection of up-to-date works on curriculum and instruction. This would enrich the lecturers at college, as well as serving teachers.

3. It is recommended that Government make available, opportunities for in-service training and workshops on curriculum development lecturers, inspectors and curriculum developers both at UNISWA and abroad.

4. Lastly it is recommended that NCC host one week workshops once a year for second year students, for their practical orientation on new curricula and for keeping the NCC staff abreast of TTC activities.

APPENDIX A

INTERVIEW SCHEDULE FOR CURRICULUM STUDIES T.T.C'S

INTRODUCTION

1. Name and address of Institution

.....

.....

2. Sex of respondent - Male / Female

3. Position held by respondent:

Head of Department/Lecturer/Curriculum Designer/Curriculum Evaluator/Teacher Educator.

4. Teaching experience ---------- years.

5. Subject area in present job ----------

6. How long have you been in this post? ----------.

RELEVANCE / TIMING

7. In view of the development of new curricula in Swaziland, at what level should student teachers be taught Curriculum Studies?

(a) Primary Teachers Certificate (PTC) level - Yes/No

(b) Secondary Teachers Certificate (STC) level - Yes/No

(c) Both levels Yes/No

8. (a) If yes, when? - 1st Year/Second Year/both.

(b) For how long?

PTC - about 16 weeks STC - about 16 weeks

12 " 12 "

Other ---- Other -----

(c) Length of periods per week?

PTC 120 minutes STC 120 minutes

90 " 90 "

60 " 60 "

Other ------- Other -------

(d) What Department should teach Curriculum Studies to student teachers?

(i) The Education Department
(ii) All Subject Departments at the Teather Training College (TTC)
(iii) The Curriculum Designers at the National Curriculum Centre (NCC).
(iv) The NCC Teacher Educators.
(v) All of the above.

9. (a) If your answer to number 7 was "No", Why?

(i) Time for teaching it is not available
(ii) The education level of the student teachers is still too low.
(iii) The subject is unnecessary.
(iv) Other.....

.....

.....

(b) What alternative suggestions would you offer, for making student teachers aware of the current curriculum development effort in Swaziland?

.....

.....

.....

CONCEPTS

It is proposed to treat the following concepts from numbers 10 - 15, in outline only.
Indicate whether they should be taught to student teachers; also the college levels

10. a) The meaning of curriculum - PTC/STC/Both
b) The meaning of curriculum development - PTC/STC/Both

11. The elements of curriculum:

a) Objectives - PTC/STC/Both
b) Content - " " "
c) Evaluation - " " "

12. The bases of Curriculum Development:

a) Philosophy - PTC/STC/Both
b) Psychology - " " "
c) Sociology - " " "

13. The bases for objectives:

a) Society - PTC/STC/Both
b) Subject area - " " "
c) Student needs - " " "

14. Curriculum Development

a) Needs Assessment - PTC/STC/Both
b) Situational Analysis - " " "
c) Selection and statement of objective objectives - " " "
d) Selection and writing of content - " " "
e) Writing of instructional materials and evaluation devices - " " "
f) Trial testing - " " "
g) Implementation - " " "

15. Techniques for test construction - " " "

16. Add any other points or comments related to curriculum development concepts.

.....

.....

ORIENTATION OF STUDENT TEACHERS ON THE NEW CURRICULUM

17. Should student teachers be oriented on the new curricula while at college?
YES/NO

18. If yes, what aspects need to be emphasized?

a) Detailed content of each subject area
b) Outline content of each subject area
c) Attention to likely problem areas and measures to solve them e.g. by means of demonstrations, discussions etc.
d) Overview of some of the suggested techniques and methods for each subject area
e) Construction of suggested teaching aids.
f) Other _____

_____

19. If your answer to number 17 was "No", suggest alternative ways of keeping the student teachers abreast of the new curricula

.....

.....

.....

.....

CURRICULUM ADAPTATION

20. What points should student teachers take into account when adapting the curriculum of a given subject, to suit their pupils' needs?

Rank order these topics by writing 1 in the space next to the most important one, 2 to the topic which is next in importance - and so on, up to 10. (The respondent will be given the paper with the topics below.)

- Relevance to existing situations
- Feasibility of suggested methods and techniques
- Financial considerations
- Relationship between objectives, content and evaluation
- Scope and sequence
- Balance
- Student interest
- Teacher proficiency
- Applicability to the classroom situation
- Student needs

21. Please make any additional points comments on curriculum adaptation.

.....

.....

.....

.....

APPENDIX B

NATIONAL GOALS

(A) Ngwenyama as King of Swaziland and Head of State;

(B) Respect for Swazi Institutions including Customary Law;

(C) A Free Democracy based on the best of Swazi Tradition and Modern Constitutional Law;

(D) A Non-racial State based on foundations of equality and non-discrimination;

(E) A Sound and Stable Government with an Impartial and Independent Judiciary;

(F) Maximum Progress and Development in all fields in the shortest possible time;

(G) A Rapid and Constructive Economic Development and the Raising of Standard of Living;

(H) A Stable and Good Government, Internal peace and harmony;

(I) A Free Swaziland always seeking peace and goodwill towards all mankind;

(J) Entrenchment of the Institution of Kingship, Swazi National Council and Chiefs;

(K) Entrenchment of the Freedom of the individual and fundamental human rights;

(L) SiSwati and English to be Official Languages.

(Excerpt from "Inbokodvo manifesto" by His Excellency the RT. Hon. Prince Makhosini, Prime Minister, pp 9-10, dated 27 - 4 - 72)

EDUCATIONAL AIMS

(A) Education is an unalienable right of every child and every citizen to receive to the limit of his/her capabilities;

(B) The purpose of education is to produce an enlightened and participant citizenry;

(C) The content of education must be work-oriented from the primary to the highest levels.

(D) Universal Free Primary education for every Swazi child is the ultimate goal of the Imbokodvo;

(E) Merit and aptitude will be the only criteria for selection into secondary and other forms of higher learning;

(F) The national campaign for adult education is and will continue to be actively supported;

(G) Special State Bursaries and Scholarships for higher education have been created;

(H) Improved and enlarged facilities for secondary education with continue to be provided;

(I) Specialised educational institutions are being established to cater for agricultural training, technical training for workers and artisans, for training administration, community development, for commerce and special schools for retarded children;

(J) Imbokodvo has ensured that all discrimination whether in respect of staff or children shall be removed;

(K) The control of education lies with the Government of Swaziland whether it concerns State Schools, Subsidised Schools or Private undertakings;

(L) It is the Policy of the Imbekedvo that all education shall be designed to inculcate love for our Land, loyalty to our King and Country, self-respect, self-discipline, respect for the law accompanied by the highest degree of knowledge and the building of character;

(M) The medium through which Government's Educational Policy is carried out are the TEACHERS. It follows therefore that, in order for this Policy to succeed, Government should take proper care of the teachers. To this end, Government has and is taking a number of steps to improve the lot of the teachers: e.g. The Trowbridge Report, Free Ordinary Medical Treatment, the proposed Teaching Service Commission, Pension Scheme, etc. (Ibid pp 26-28)

APPENDIX C

BLOOMS TAXANOMY OF EDUCATIONAL OBJECTIVES

COGNITIVE DOMAIN

1. Knowing
   a. facts, forms, patterns, symbols, or terminology
   b. trends, divisions, classes, or criteria
   c. methodology, theory, principles, or generalizations

2. Comprehending
   a. translating (into own words)
   b. interpreting (a brief summary)
   c. extrapolating (implication and consequences)

3. Applying
   a. ideas in concrete situations
   b. principles, ideas, and theories
   c. process or procedure

4. Analyzing
   a. basic elements
   b. relationship of the parts
   c. structure, unit, idea, or material

5. Synthesizing
   a. communication
   b. combinations and plans
   c. creative behaviour

6. Evaluating
   a. value judgements on internal evidence
   b. value judgements on external evidence

AFFECTIVE DOMAIN

1. Receiving (attending)

   a. awareness of a new idea, object, process, or state of affairs
   b. willingness to pay attention to the new condition or thing
   c. selection of favoured stimulus and development of a definite and evident interest.

2. Responding

   a. compliance with suggestions or requests
   b. willing cooperation and voluntary action
   c. evident satisfaction in responding

3. Valuing

   a. emotional acceptance of the value or worth of some idea, quality, or thing
   b. evident preference for a value - which shows in behaviour
   c. commitment to a value which results in increased involvement and attempts to convince others of its worth

4. Organizing

   a. definition and isolation of a value concept
   b. organization of a complex of values into an ordered relationship with one another

5. Characterizing (integrating)

   a. development of certain values into controlling tendencies or behaviour guides
   b. integration of a number of values into a coherent philosophy or view of life

PSYCHOMOTOR DOMAIN

1. Observing
   a. attention to details and result of process as performed by person or media.
   b. reading and study of written directions, charts, and/or diagrams.

2. Imitating
   a. following of steps in a consious attempt to repeat the performance of teacher.

3. Practicing
   a. repetition of process until smooth performance requiring less conscious effort is attained (this may require intervals of return to observation and imitation).

4. Adapting
   a. adaptation and modification of the process to suit the individual and/or the situation which is a result of intellectual analysis and decision.

BIBLIOGRAPHY

Bloom, Benjamin, S. Taxanomy of Educational Objectives: Handbook 1. New York: David McKay Inc., 1956

Brunner, Jerome, S. The Process of Education. New York: Norton, 1971.

Cronback, L. J. "Course Improvement Through Evaluation," Teachers' College Record (May, 1963) 672-83

Dewey, John. The Child and the Curriculum. Chicago: University of Chicago Press, 1902.

Ginindza, Zodwa. Social Studies Teacher's Guide, Grade 3. Mbabane: MacMillan Publishing Co., 1981.

Hass, Glen, Bondi, Joseph and Wiles, John. Readings in Curriculum and Bacon Inc., 1970.

Hawes, H.W.R. Planning the Primary School Curriculum in Developing Countries. Paris: UNESCO, 1972.

Hyman, Ronald T., Ed. Approaches in Curriculum. Engle Cliff N.J.: Prentice Hall Inc., 1973.

Kuper, Hilda. The Swazi. New York: MacMillan Press, 1963.

Kneller, George, F. Introduction to the Philosophy of Education. London: John Wiley and Sons Inc., 1964.

Lewy, Arieh. Handbook of Curriculum Evaluation. Paris: UNESCO, 1977.

Mager, Robert, F. Preparing Instructional Objectives. Palo Atto: Fearon Publishers, 1962.

Mugiri, E. M. "Preparation and Evaluation of Curriculum Instructional Materials" (March, 1983).

Nicholls, Audrey and Howard. Developing a Curriculum: A Practical Guide. London: George Allen and Unwin Ltd., 1972.

Nyerere, J. Education for Self Reliance. Dar-es-Salaam: Information Services Division, Ministry of Information & Tourism, 1967.

Ondiek, Patroba, E. Curriculum Development: Alternatives in Educational Theory and Practice. Nairobi: African Book Service, 1963.

Rodgers, Frederick, A. Curriculum and Instruction in the Elementary School. New York: MacMillan Publishing Co., Inc., 1975.

Saylor, J. Galen and Alexander, William. Planning Curriculum For Schools. New York: Holt, Rinehart and Winston, Inc., 1954.

Swaziland Government. "National Policies of Imbokodvo" "Primary School Outcomes" Manzini: P.C.U., 1976. (April, 1972) pp 9-10 and 26-28.

Swaziland Government. Third National Development Plan, 1978/79 - 1982/83. Mbabane: Swaziland Printing & Publishing Press, 1978.

Taba, Hilda. Curriculum Development: Theory and Practice. London: Harcourt Brace & World Inc., 1962.

Tyler, Ralph. The Basic Principles of Curriculum and Instruction. Chicago. 1949.